

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C70D010 EX4C709035 4LBSQLWWH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C70D010 EX4C709035 4LBSQLWWH
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

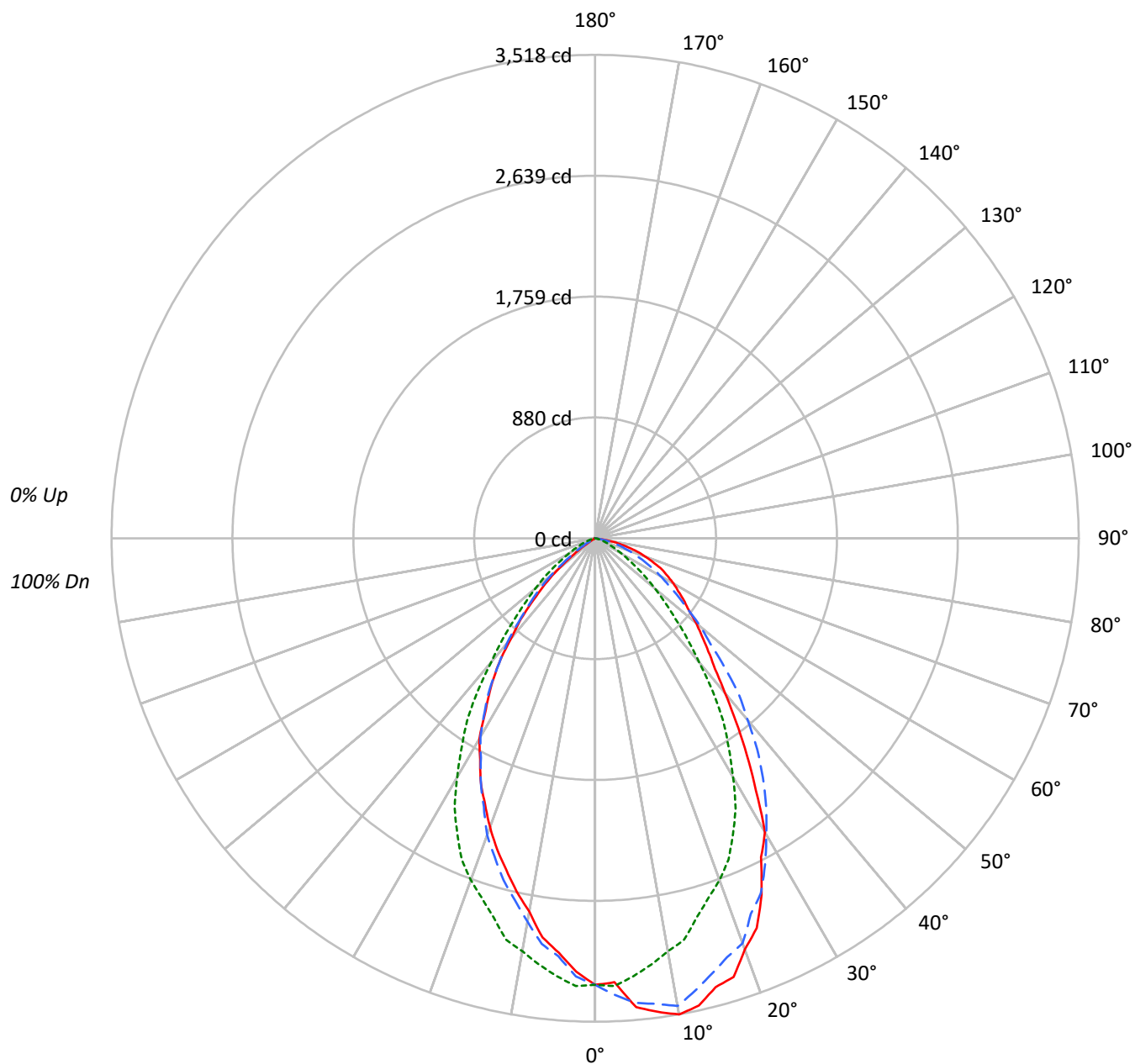
Lumens per Lamp: N/A
Luminaire Lumens: 4658.0 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P#

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74
5	85	75	67	62	83	74	67	62	72	66	61		70	65	60		68
6	80	69	61	56	78	68	61	56	66	60	55		65	59	55		63
7	75	63	56	51	73	63	56	51	61	55	50		60	54	50		59
8	70	59	52	47	69	58	51	46	57	51	46		56	50	46		55
9	66	55	48	43	65	54	47	43	53	47	43		52	46	42		51
10	62	51	44	40	61	51	44	40	50	44	39		49	43	39		48

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	313541	313541	313541
5°	331727	309847	293246
10°	344733	298919	270280
15°	337837	285293	249492
20°	326876	271654	229647
25°	304901	252617	209489
30°	275242	223567	187546
35°	226724	191387	155590
40°	185031	147723	119748
45°	158971	112194	86131
50°	143881	85398	54400
55°	132409	61603	19665
60°	127076	42088	3010
65°	122741	28471	913
70°	109912	19776	1128
75°	90070	10178	0
80°	56344	4334	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.5	6.5
10°-20°	820.3	17.6
20°-30°	1095.3	23.5
30°-40°	1039.8	22.3
40°-50°	718.7	15.4
50°-60°	397.1	8.5
60°-70°	197.2	4.2
70°-80°	77.7	1.7
80°-90°	7.4	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2220.1	47.7
0°-40°	3259.8	70.0
0°-60°	4375.7	93.9
0°-90°	4658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4658.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3250	3250	3250	3250	3250	
5°	3425	3394	3199	3055	3028	328
15°	3382	3281	2856	2576	2498	957
25°	2864	2852	2373	1968	1968	1306
35°	1925	2127	1625	1336	1321	1206
45°	1165	1336	822	674	631	909
55°	787	740	366	187	117	708
65°	538	390	125	4	4	522
75°	242	148	27	0	0	258
85°	0	4	0	0	0	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5
2.5°	3234.0	3323.6	3331.3	3323.6	3335.3	3331.3	3350.9	3331.3	3354.9	3319.7	3327.5
5°	3424.9	3389.8	3463.9	3424.9	3424.9	3421.1	3409.4	3405.4	3421.1	3370.4	3393.8
7.5°	3475.6	3526.3	3592.5	3510.7	3514.5	3514.5	3491.2	3483.4	3483.4	3389.8	3417.1
10°	3518.5	3487.2	3522.3	3491.2	3518.5	3514.5	3530.1	3479.4	3514.5	3460.0	3456.1
12.5°	3483.4	3471.6	3518.5	3467.8	3452.3	3456.1	3436.7	3424.9	3436.7	3374.2	3370.4
15°	3382.0	3393.8	3463.9	3409.4	3401.6	3393.8	3370.4	3331.3	3362.6	3276.9	3280.8
17.5°	3347.1	3327.5	3339.3	3292.4	3304.2	3296.4	3292.4	3257.5	3249.5	3195.0	3195.0
20°	3183.4	3226.2	3226.2	3195.0	3195.0	3191.2	3140.5	3171.7	3136.6	3121.0	3136.6
22.5°	3070.3	3074.3	3074.3	3047.0	3050.9	3035.4	3008.0	2988.5	3008.0	2988.5	2957.3
25°	2863.9	2871.7	2918.4	2867.7	2860.0	2875.5	2852.2	2840.4	2836.6	2789.9	2852.2
27.5°	2614.5	2692.3	2688.5	2669.0	2692.3	2661.2	2649.6	2653.4	2665.2	2661.2	2676.8
30°	2470.4	2482.0	2493.7	2478.2	2482.0	2470.4	2470.4	2474.2	2505.3	2493.7	2489.8
32.5°	2178.1	2217.0	2248.3	2248.3	2252.1	2263.8	2259.9	2341.7	2361.2	2322.3	2314.5
35°	1924.8	1952.1	1979.3	1983.3	2034.0	2037.8	2041.7	2065.1	2119.6	2131.3	2127.4
37.5°	1683.3	1710.5	1718.3	1753.4	1780.7	1807.9	1839.2	1870.3	1917.0	1955.9	1936.6
40°	1469.0	1480.6	1500.1	1515.7	1570.2	1570.2	1585.8	1648.2	1698.9	1730.0	1726.0
42.5°	1289.8	1293.6	1309.2	1336.5	1387.2	1375.4	1387.2	1430.1	1503.9	1507.9	1550.8
45°	1165.0	1161.1	1172.8	1176.7	1207.9	1223.5	1231.3	1262.4	1324.7	1332.5	1336.5
47.5°	1052.1	1048.1	1067.7	1075.4	1087.0	1102.6	1102.6	1106.6	1129.9	1149.5	1133.9
50°	958.5	958.5	958.5	966.3	985.8	981.9	985.8	1001.4	1013.0	1005.2	1001.4
52.5°	857.1	872.7	884.5	888.4	892.3	892.3	896.2	888.4	884.5	872.7	849.4
55°	787.1	802.7	802.7	802.7	802.7	818.2	798.8	802.7	802.7	771.5	740.4
57.5°	717.0	732.6	744.2	728.6	744.2	728.6	720.8	717.0	709.1	677.9	631.2
60°	658.5	666.3	662.4	658.5	666.3	654.6	646.8	631.2	623.4	580.5	549.4
62.5°	592.3	596.1	600.1	592.3	584.5	580.5	565.0	541.6	526.0	490.9	463.6
65°	537.6	526.0	522.1	518.3	510.5	498.7	487.1	459.8	448.0	416.9	389.6
67.5°	455.8	452.0	459.8	448.0	428.7	428.7	416.9	393.5	366.2	346.8	319.5
70°	389.6	385.8	378.0	366.2	362.4	346.8	346.8	319.5	311.7	276.6	253.3
72.5°	319.5	319.5	307.7	296.1	284.4	276.6	272.8	253.3	241.6	222.1	202.6
75°	241.6	241.6	237.7	225.9	218.1	210.4	206.5	191.0	179.2	159.8	148.1
77.5°	171.4	171.4	155.9	148.1	151.9	144.1	136.3	132.5	128.5	116.9	101.4
80°	101.4	97.4	85.8	89.6	85.8	85.8	81.8	77.9	70.1	62.3	54.5
82.5°	27.3	31.1	31.1	31.1	35.1	27.3	27.3	27.3	31.1	31.1	19.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0
87.5°	4.0	7.8	15.6	15.6	15.6	15.6	15.6	11.8	11.8	11.8	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5
2.5°	3288.6	3284.6	3288.6	3261.3	3323.6	3276.9	3269.1	3261.3	3288.6	3261.3	3222.4
5°	3358.7	3319.7	3308.0	3296.4	3331.3	3276.9	3265.3	3269.1	3249.5	3199.0	3202.8
7.5°	3382.0	3347.1	3312.0	3237.9	3269.1	3257.5	3226.2	3202.8	3171.7	3128.8	3121.0
10°	3389.8	3350.9	3300.2	3276.9	3230.1	3214.6	3202.8	3163.9	3125.0	3050.9	3031.4
12.5°	3366.5	3319.7	3257.5	3237.9	3202.8	3152.1	3125.0	3085.9	3050.9	2992.5	2949.6
15°	3265.3	3226.2	3206.8	3140.5	3125.0	3093.7	3039.2	2984.7	2934.0	2856.0	2832.6
17.5°	3148.3	3132.7	3113.2	3062.5	3058.7	3027.6	2976.9	2930.0	2863.9	2743.0	2704.1
20°	3027.6	3027.6	2965.1	2945.7	2984.7	2922.2	2883.3	2840.4	2704.1	2645.6	2575.6
22.5°	2938.0	2895.1	2860.0	2828.8	2832.6	2793.7	2739.2	2653.4	2602.7	2532.7	2450.8
25°	2762.6	2778.1	2700.3	2688.5	2700.3	2610.5	2583.3	2513.1	2439.1	2372.8	2310.6
27.5°	2653.4	2610.5	2560.0	2517.1	2517.1	2482.0	2404.1	2388.6	2275.4	2213.2	2135.2
30°	2489.8	2458.6	2415.7	2353.5	2345.7	2318.3	2256.1	2217.0	2100.2	2006.6	1963.7
32.5°	2283.2	2271.6	2236.5	2166.5	2143.1	2111.8	2034.0	1967.7	1913.2	1807.9	1757.3
35°	2135.2	2092.4	2018.4	1959.9	1940.4	1885.9	1823.4	1776.7	1718.3	1624.8	1558.6
37.5°	1913.2	1870.3	1800.1	1730.0	1730.0	1675.5	1589.7	1543.0	1461.2	1406.5	1352.0
40°	1718.3	1663.8	1593.7	1511.9	1500.1	1422.1	1387.2	1309.2	1258.5	1172.8	1165.0
42.5°	1500.1	1449.4	1387.2	1324.7	1278.0	1239.1	1149.5	1091.0	1036.5	993.6	981.9
45°	1301.4	1235.1	1180.6	1102.6	1055.9	1009.2	950.7	911.8	868.9	822.2	794.9
47.5°	1129.9	1075.4	997.4	927.4	880.7	857.1	790.9	748.2	713.0	681.9	662.4
50°	954.7	888.4	845.5	767.5	759.8	705.3	650.8	615.7	596.1	568.9	541.6
52.5°	822.2	759.8	701.3	643.0	611.7	592.3	541.6	506.5	479.3	459.8	444.2
55°	693.5	639.0	592.3	533.8	514.3	487.1	428.7	420.9	393.5	366.2	346.8
57.5°	596.1	545.4	490.9	452.0	416.9	397.5	350.6	319.5	303.9	280.6	261.0
60°	506.5	452.0	409.1	362.4	346.8	319.5	284.4	257.2	237.7	218.1	198.8
62.5°	424.7	378.0	331.3	292.2	268.8	253.3	225.9	202.6	183.2	167.6	151.9
65°	350.6	307.7	268.8	229.9	218.1	198.8	179.2	159.8	144.1	124.7	109.1
67.5°	288.4	249.4	210.4	183.2	171.4	163.6	140.3	120.7	109.1	97.4	81.8
70°	225.9	198.8	167.6	144.1	132.5	120.7	105.2	93.6	77.9	70.1	58.5
72.5°	175.4	151.9	124.7	105.2	97.4	89.6	74.0	62.3	54.5	46.7	38.9
75°	124.7	105.2	89.6	70.1	66.3	62.3	50.7	42.9	35.1	27.3	23.4
77.5°	85.8	70.1	54.5	46.7	42.9	35.1	31.1	23.4	19.5	15.6	11.8
80°	46.7	35.1	27.3	23.4	19.5	15.6	15.6	11.8	7.8	7.8	4.0
82.5°	15.6	11.8	7.8	4.0	4.0	4.0	4.0	4.0	4.0	0.0	4.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5
2.5°	3245.7	3202.8	3214.6	3214.6	3206.8	3206.8	3199.0	3187.2	3191.2	3167.7	3117.2
5°	3210.6	3156.1	3148.3	3156.1	3125.0	3117.2	3101.6	3125.0	3054.7	3082.1	3050.9
7.5°	3109.4	3058.7	3047.0	3074.3	3035.4	3011.8	3008.0	3039.2	2976.9	2945.7	2910.6
10°	2996.3	2976.9	2941.8	2922.2	2910.6	2914.5	2883.3	2844.4	2832.6	2824.8	2793.7
12.5°	2895.1	2852.2	2821.0	2797.7	2789.9	2789.9	2739.2	2731.4	2696.3	2688.5	2641.8
15°	2774.2	2723.6	2704.1	2673.0	2645.6	2661.2	2602.7	2587.2	2575.6	2524.9	2532.7
17.5°	2669.0	2614.5	2567.8	2548.2	2524.9	2501.5	2446.9	2458.6	2431.3	2431.3	2361.2
20°	2532.7	2474.2	2439.1	2400.2	2400.2	2369.0	2330.1	2333.9	2298.8	2263.8	2201.4
22.5°	2388.6	2326.1	2283.2	2267.7	2228.7	2221.0	2174.2	2162.5	2115.8	2119.6	2065.1
25°	2236.5	2174.2	2115.8	2119.6	2084.6	2069.1	2041.7	1987.2	1967.7	1944.3	1928.8
27.5°	2057.3	2014.4	1963.7	1959.9	1893.7	1897.5	1862.5	1847.0	1800.1	1811.8	1776.7
30°	1893.7	1831.4	1784.5	1772.9	1745.6	1737.8	1683.3	1659.8	1667.7	1636.4	1617.1
32.5°	1726.0	1632.6	1613.1	1589.7	1574.2	1554.6	1515.7	1531.3	1496.2	1503.9	1472.8
35°	1503.9	1465.0	1414.3	1414.3	1398.8	1383.2	1356.0	1371.6	1336.5	1320.9	1289.8
37.5°	1316.9	1282.0	1231.3	1246.9	1219.5	1196.2	1172.8	1176.7	1145.5	1141.7	1110.4
40°	1114.4	1094.8	1059.9	1059.9	1040.3	1040.3	1028.6	1017.0	997.4	974.1	939.0
42.5°	923.4	907.8	892.3	896.2	868.9	892.3	861.1	880.7	818.2	814.4	790.9
45°	783.1	748.2	752.0	736.4	720.8	728.6	701.3	709.1	674.1	666.3	643.0
47.5°	635.2	623.4	600.1	592.3	592.3	580.5	568.9	565.0	549.4	529.9	498.7
50°	522.1	479.3	471.4	459.8	452.0	452.0	436.4	413.1	416.9	397.5	366.2
52.5°	409.1	374.0	358.4	354.6	339.0	331.3	311.7	296.1	284.4	276.6	257.2
55°	315.5	284.4	265.0	265.0	241.6	241.6	214.3	202.6	187.0	171.4	159.8
57.5°	237.7	222.1	202.6	187.0	179.2	159.8	144.1	124.7	113.0	89.6	74.0
60°	179.2	163.6	144.1	132.5	124.7	105.2	85.8	70.1	42.9	35.1	31.1
62.5°	132.5	116.9	97.4	89.6	81.8	66.3	46.7	23.4	11.8	11.8	11.8
65°	97.4	77.9	62.3	54.5	46.7	35.1	15.6	7.8	4.0	4.0	4.0
67.5°	66.3	50.7	35.1	31.1	23.4	11.8	4.0	4.0	4.0	4.0	4.0
70°	42.9	31.1	15.6	11.8	7.8	4.0	4.0	4.0	4.0	4.0	4.0
72.5°	27.3	15.6	7.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	15.6	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709035 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5	3249.5
2.5°	3171.7	3144.3	3159.9	3125.0	3140.5	3167.7	3148.3	3156.1
5°	3062.5	3047.0	3027.6	2976.9	3015.8	3047.0	3031.4	3027.6
7.5°	2945.7	2891.1	2918.4	2902.9	2895.1	2926.2	2891.1	2930.0
10°	2824.8	2785.9	2782.1	2754.8	2754.8	2778.1	2782.1	2758.6
12.5°	2645.6	2626.2	2626.2	2622.3	2618.3	2641.8	2645.6	2634.0
15°	2517.1	2509.3	2489.8	2486.0	2462.6	2497.6	2501.5	2497.6
17.5°	2361.2	2365.1	2345.7	2345.7	2361.2	2372.8	2341.7	2372.8
20°	2256.1	2236.5	2228.7	2193.6	2213.2	2232.7	2232.7	2236.5
22.5°	2104.0	2072.9	2084.6	2065.1	2053.3	2080.7	2080.7	2092.4
25°	1932.6	1932.6	1940.4	1928.8	1936.6	1952.1	1940.4	1967.7
27.5°	1768.9	1784.5	1784.5	1768.9	1776.7	1823.4	1843.0	1811.8
30°	1617.1	1620.9	1632.6	1624.8	1648.2	1663.8	1659.8	1683.3
32.5°	1445.6	1465.0	1472.8	1461.2	1469.0	1503.9	1484.6	1480.6
35°	1313.1	1278.0	1274.2	1278.0	1293.6	1301.4	1293.6	1320.9
37.5°	1122.2	1110.4	1094.8	1098.8	1110.4	1126.1	1133.9	1153.3
40°	939.0	923.4	923.4	919.6	907.8	950.7	950.7	950.7
42.5°	779.3	775.3	755.9	755.9	771.5	783.1	775.3	802.7
45°	639.0	623.4	611.7	611.7	623.4	623.4	635.2	631.2
47.5°	502.7	487.1	490.9	479.3	490.9	506.5	487.1	490.9
50°	378.0	378.0	370.2	378.0	374.0	378.0	370.2	362.4
52.5°	257.2	292.2	296.1	280.6	245.5	214.3	194.8	210.4
55°	148.1	132.5	132.5	128.5	120.7	116.9	105.2	116.9
57.5°	74.0	66.3	66.3	66.3	62.3	58.5	50.7	50.7
60°	31.1	27.3	27.3	23.4	19.5	15.6	11.8	15.6
62.5°	11.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
65°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
67.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
70°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)